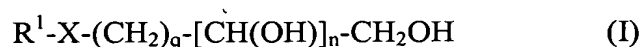


## AMENDMENTS TO THE CLAIMS

Claim 1 (Original): A polishing liquid composition for polishing a surface to be polished comprising an insulating layer and a metal layer, the polishing liquid composition comprising a compound having a structure in which each of two or more adjacent carbon atoms has a hydroxyl group in a molecule, and water, wherein the compound having a structure in which each of two or more adjacent carbon atoms has a hydroxyl group in a molecule is represented by the formula (I):



wherein

$R^1$  is a hydrocarbon group having 1 to 24 carbon atoms;

X is a group represented by

$(CH_2)_m$ , wherein m is 1,

oxygen atom,

sulfur atom,

COO group,

OCO group,

a group represented by  $NR^2$  or

$O(R^2O)P(O)O$ , wherein  $R^2$  is hydrogen atom or a hydrocarbon group having 1

to 24 carbon atoms;

q is 0 or 1; and

n is an integer of 1 to 4.

Claim 2 (Original): The polishing liquid composition according to claim 1, further comprising an organic acid.

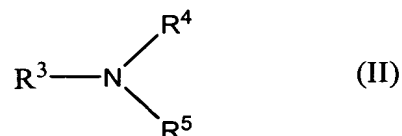
Claim 3 (Original): The polishing liquid composition according to claim 2, wherein the organic acid is an etching agent.

Claim 4 (Original): The polishing liquid composition according to claim 1, further comprising an etching agent comprising an inorganic acid.

Claim 5 (Canceled)

Claim 6 (Previously Presented): A polishing liquid composition for polishing a surface to be polished comprising an insulating layer and a metal layer, the polishing liquid composition comprising

an amine compound represented by the following general formula (II):



wherein

$\text{R}^3$  is a linear or branched alkyl group having 4 to 18 carbon atoms,  
a linear or branched alkenyl group having 4 to 18 carbon atoms,  
an aryl group having 6 to 18 carbon atoms, and  
an aralkyl group having 7 to 18 carbon atoms;

each of  $\text{R}^4$  and  $\text{R}^5$ , which may be identical or different, is

a linear alkyl group having 1 to 8 carbon atoms or

a branched alkyl group having 3 to 8 carbon atoms, or

a group represented by  $\text{H}-(\text{OR}^6)_Z$ -, wherein  $\text{R}^6$  is a linear alkylene group having 1 to 3 carbon atoms, or

a branched alkylene group having 3 carbon atoms; and

$Z$  is a number of 1 to 20, and/or a salt thereof,

an etching agent,

an oxidizing agent, and

water.

Claim 7 (Previously Presented): The polishing liquid composition according to Claim 1, further comprising an oxidizing agent, an abrasive or a mixture thereof.

Claim 8 (Canceled)

Claim 9 (Withdrawn): A method of using a polishing liquid composition, the method comprising polishing a surface using the polishing liquid composition of Claim 1.

Claim 10 (Canceled)

Claim 11 (Previously Presented): The polishing liquid composition according to claim 2, further comprising an oxidizing agent, an abrasive or a mixture thereof.

Claim 12 (Canceled)

Claim 13 (Previously Presented): The polishing liquid composition according to claim 6, further comprising an oxidizing agent, an abrasive or a mixture thereof.

Claim 14 (Withdrawn): A method of using a polishing liquid composition, the method comprising polishing a surface using the polishing liquid composition of claim 2.

Claim 15 (Canceled)

Claim 16 (Withdrawn): A method of using a polishing liquid composition, the method comprising polishing a surface using the polishing liquid composition of claim 6.

Claim 17 (Withdrawn): A method of using a polishing liquid composition, the method comprising polishing a surface using the polishing liquid composition of claim 7.

Claim 18 (Withdrawn ): A method of using a polishing liquid composition, the method comprising polishing a surface using the polishing liquid composition of claim 11.

Claim 19 (Canceled)

Claim 20 (Withdrawn): A method of using a polishing liquid composition, the method comprising polishing a surface using the polishing liquid composition of claim 13.

Claims 21-27 (Canceled)

Claim 28 (Withdrawn): A method of making a polishing liquid composition, the method comprising  
mixing water and a compound having a molecular structure in which each of two or more adjacent carbon atoms has a hydroxyl group; and  
producing the polishing liquid composition of claim 1.

Claim 29 (Canceled)

Claim 30 (Withdrawn): A method of making a polishing liquid composition, the method comprising  
mixing an amine compound, an etching agent, an oxidizing agent and water; and  
producing the polishing liquid composition of claim 6.

Claims 31-32 (Canceled)

Claim 33 (New): A polishing liquid composition for polishing a surface to be polished comprising an insulating layer and a metal layer, the polishing liquid composition comprising an aliphatic carboxylic acid having 7 to 24 carbon atoms and/or a salt thereof, an etching agent comprising an organic acid, and water, wherein

the organic acid of the etching agent is at least one selected from the group consisting of

- A: aliphatic organic acids selected from the group consisting of formic acid, propionic acid, tricarballic acid, 2-hydroxypropionic acid, gluconic acid, and amino acids;
- B: aromatic organic acids having 7 to 10 carbon atoms and one to four carboxyl groups; and
- D: polyaminocarboxylic acids having in a molecule two or more structures represented by the formula (III):



Claim 34 (New): The polishing liquid composition according to claim 33, further comprising an oxidizing agent, an abrasive or a mixture thereof.

Claim 35 (New): A method of using a polishing liquid composition, the method comprising polishing a surface using the polishing liquid composition of claim 33.

Claim 36 (New): A method of using a polishing liquid composition, the method comprising polishing a surface using the polishing liquid composition of claim 34.

Claim 37 (New) A method of making a polishing liquid composition, the method comprising

mixing an aliphatic carboxylic acid having 7 to 24 carbon atoms and/or a salt thereof, an etching agent, an oxidizing agent and water; and

producing the polishing liquid composition of claim 33.

### SUPPORT FOR THE AMENDMENT

This Amendment cancels Claims 5, 12, 15, 19, 29 and 31-32; and adds new Claims 33-37. Support for the amendments is found in the specification and claims as originally filed. In particular, support for new Claims 33-37 is found in canceled Claims 31, 12, 15, 19 and 29, respectively. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1-4, 6-7, 9, 11, 13-14, 16-18, 20, 28, 30 and 33-37 will be pending in this application. Claims 1, 6 and 33 are independent. Claims 9, 14, 16-18, 20, 28 and 30 are withdrawn from consideration.

### REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

Applicants thank the Examiner for the indication that Claims 1, 2, 3, 4, 6, 7, 11 and 13 are allowed. Final Rejection at page 4, section 4.

The present invention provides a polishing liquid composition that, when used to polish a surface comprising an insulating layer and a metal layer, prevents the occurrence of dishing.

Claims 5, 12 and 31-32 are rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,783,489 ("Kaufman-489"). In addition, Claim 31 is objected to. Claims 5, 12 and 31-32 are canceled, so the rejection and objection are moot and should be withdrawn.

Kaufmann-489 fails to disclose or exemplify the specific combination of acids of new independent Claim 33 of an (i) aliphatic carboxylic acid having 7 to 24 carbon atoms and/or a salt thereof and (ii) the recited etching agent. Claim 33's acids synergistically combine to maintain a practical polishing speed while avoiding excessive etching of a metal layer, which leads to undesirable dishing. See, e.g., specification at page 18, lines 1-10.



Given the large number of acid combinations possible from Kaufman-489's list of acids at column 6, lines 1-13, there is no reasonable expectation that Kaufman-489 would successfully lead the skilled artisan to the Claim 33 combination of acids (i) and (ii) necessary to both maintain polishing speed and prevent dishing.

Pursuant to M.P.E.P. § 821.04, after independent product Claims 1, 6 and 33 are allowed, Applicants respectfully request rejoinder, examination and allowance of withdrawn method Claims 9, 14, 16-18, 20, 28 and 30, which include all of the limitations of independent product Claims 1 and 6, respectively; and examination and allowance of new method Claims 35-37, which include all of the limitations of independent product Claim 33.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/03)

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon



---

Corwin P. Umbach, Ph.D.  
Registration No. 40,211